AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

Listing of the Claims

1. (Currently Amended) A recording medium storing a data structure for managing reproduction of graphic data by a reproducing apparatus, comprising:

a data area storing a plurality of source packets of a transport stream, each of the source packets including an ~~a transport packet~~ extra header and a transport packet, the transport packets representing a graphic segment ~~containing~~ for a graphic image for overlay on main video data, the transport packets representing the graphic segment being multiplexed with ~~a main video stream including~~ the main video data, wherein

each of the transport packets of the graphic segment have a same packet identifier (PID);

wherein the graphic segment is used for controlling the graphic image, the graphic segment including position information of the graphic image, a time stamp of the graphic image and reproduction information for controlling display effect of the graphic image, the display effect being at least one of fade effect and wipe effect. ~~and~~

~~at least one transport packet of the graphic segment includes position information defining a position for the reproducing apparatus to display the graphic image, and~~

~~at least one transport packet in the graphic segment includes a time stamp of the graphic image.~~

2. – 7. (Cancelled)

8. (Currently Amended) A method of reproducing a data structure for managing reproduction of graphic data from a recording medium, comprising:

reading a plurality of source packets of a transport stream, each of the source packets including an ~~a transport packet~~ extra header and a transport packet, the transport packets representing a graphic segment for ~~containing~~ a graphic image for overlay on main video data, the transport packets representing the graphic segment being multiplexed with ~~a main video stream containing~~ the main video data, the transport packets representing the graphic segment having a same packet identifier;

converting the transport stream into a data stream by depacketizing the source packets into the ~~transport packet~~ extra header and the transport packet;

demultiplexing the data stream into a main video stream and the graphic segment, the graphic segment being used for controlling the graphic image, the graphic segment including position information of the graphic image, a time stamp of the graphic image and reproduction information for controlling display effect of the graphic image, the display effect being at least one of fade effect and wipe effect;

reproducing the main video stream and the graphic segment, ~~wherein~~

~~each of the transport packets of the graphic segment have a same packet identifier (PID),~~

displaying the graphic image on the main video data according to the position information, the time stamp and the reproduction information such that the graphic image is displayed according to the at least one of fade effect and wipe effect.

~~at least one transport packet of the graphic segment includes position information defining a position to display the graphic image,~~

~~at least one transport packet of the graphic segment includes a time stamp of the graphic image, and~~

~~overlaying the graphic image on the main video data according to the position~~

~~information.~~

9. (Currently Amended) An apparatus for reproducing a data structure for managing reproduction of graphic data from a recording medium, comprising:

~~an optical~~ a reproducing device configured to read a plurality of source packets of a transport stream from the recording medium, each of the source packets including an ~~a transport packet~~ extra header and a transport packet, the transport packets representing a graphic segment for ~~containing~~ a graphic image for overlay on main video data, the transport packets representing the graphic segment being multiplexed with ~~a main video stream containing~~ the main video data, the transport packets representing the graphic segment having a same packet identifier (PID);

a source depacketizer configured to convert the transport stream into a data stream by depacketizing the source packets into the ~~transport packet~~ extra header and the transport packet;

a demultiplexer configured to demultiplex the data stream into a main video stream and the graphic segment, the graphic segment being used for controlling the graphic image, the graphic segment including position information of the graphic image, a time stamp of the graphic image and reproduction information for controlling display effect of the graphic image, the display effect being at least one of fade effect and wipe effect; and

a controller configured to control the ~~optical~~ reproducing device to reproduce the main video stream and the graphic segment, and display the graphic image on the main video data according to the position information, the time stamp, and the reproduction information such that the graphic image is displayed according to the at least one of fade effect and wipe effect. ~~, wherein~~

~~each of the transport packets of the graphic segment have a same packet~~

~~identifier (PID),~~

~~at least one transport packet in the graphic segment includes position information defining a position to display the graphic image, and~~

~~at least one transport packet of the graphic segments includes a time stamp of the graphic image; and~~

~~the controller being configured to control the optical reproducing device to overlay the graphic image on the main video data according to the position information.~~

10. (Currently Amended) A method of recording a data structure for managing reproduction of graphic data on a recording medium, comprising:

recording a plurality of source packets of a transport stream on the recording medium, each of the source packets including an ~~a transport packet~~ extra header and a transport packet, the transport packets representing a graphic segment for ~~containing~~ a graphic image to be overlaid on main video data, the graphic segment being multiplexed with ~~a main video stream containing~~ the main video data, the transport packets representing the graphic segment being multiplexed with the main video data, the transport packets representing the graphic segment having a same packet identifier (PID),

wherein the graphic segment is used for controlling the graphic image, the graphic segment including position information of the graphic image, a time stamp of the graphic image and reproduction information for controlling display effect of the graphic image, the display effect being at least one of fade effect and wipe effect. ~~wherein~~

~~each of the transport packets of the graphic segment have a same packet identifier (PID),~~

~~at least one transport packet of the graphic segment includes position information defining a position to display the graphic image, and~~

~~at least one transport packet of the graphic segment includes a time stamp of the graphic images~~.

11. (Currently Amended) An apparatus for recording a data structure for managing reproduction of graphic data on a recording medium, comprising:

~~an optical~~ a recording device configured to record a plurality of source packets of a transport stream on the recording medium, each of the source packets including an ~~a transport packet~~ extra header and a transport packet, the transport packets representing a graphic segment for ~~containing~~ a graphic image for overlay on main video data, ~~the graphic segment being multiplexed with a main video stream containing the main video data~~ the transport packet representing the graphic segment being multiplexed with the main video data, the transport packets representing the graphic segment having a same packet identifier (PID); and

a controller configured to control the ~~optical~~ recording device,

~~wherein each of the transport packets of the graphic segment have a same packet identifier (PID),~~

~~at least one transport packet of the graphic segment includes position information defining a position to display the graphic image, and~~

~~at least one transport packet of the graphic segment includes a time stamp of the graphic images~~

wherein the graphic segment is used for controlling the graphic image, the graphic segment including position information of the graphic image, a time stamp of the graphic image and reproduction information for controlling display effect of the graphic image, the display effect being at least one of fade effect and wipe effect.

12. – 23. (Cancelled)

24. (Currently Amended) The recording medium of claim 1, wherein ~~at least one transport packet of~~ the graphic segment includes information on presentation time to display the graphic image, and duration to display the graphic images.

25. (Currently Amended) The method of claim 8, wherein ~~at least one transport packet of~~ the graphic segment includes information on presentation time to display the graphic image, and duration to display the graphic image.

26. (Currently Amended) The apparatus of claim 9, wherein the controller is configured to control the ~~optical~~ reproducing device to reproduce the graphic segment ~~at least one transport packet~~ including information on presentation time to display the graphic image, and duration to display the graphic image.

27. (Currently Amended) The method of claim 10, wherein the graphic segment ~~at least one transport packet~~ includes information on presentation time to display the graphic image, and duration to display the graphic image.

28. (Currently Amended) The apparatus of claim 11, wherein the controller is configured to control the ~~optical~~ recording device to record the graphic segment ~~at least one transport packet~~ including information on presentation time to display the graphic image, and duration to display the graphic image.

29. (Previously Presented) The recording medium of claim 1, wherein the recording medium further stores a playlist including navigation information for playback control of the main video stream.

30. (Previously Presented) The method of claim 8, further comprising:

reproducing a playlist from the recording medium, the playlist including navigation information for playback control of the main video stream; and

reproducing the graphic segment using the playlist.

31. (Currently Amended) The apparatus of claim 9, wherein the controller is configured to control the ~~optical~~ reproducing device to reproduce the graphic segment using a playlist, the playlist including navigation information for playback control of the main video stream.

32. (Previously Presented) The method of claim 10, further comprising:

recording a playlist including navigation information for playback control of the main video stream on the recording medium.

33. (Currently Amended) The apparatus of claim 11, wherein the controller is configured to control the ~~optical~~ recording device to record a playlist including navigation information for playback control of the main video stream on the recording medium.

34. (Previously Presented) The recording medium of claim 29, wherein the playlist includes a graphic mark indexing the graphic image and specifying display duration of the graphic image.

35. (Previously Presented) The method of claim 30, wherein the playlist includes a graphic mark indexing the graphic image and specifying display duration of the graphic image.

36. (Previously Presented) The apparatus of claim 31, wherein the playlist includes a graphic mark indexing the graphic image and specifying display duration of the graphic image.

37. (Previously Presented) The method of claim 32, wherein the playlist includes a graphic mark indexing the graphic image and specifying display duration of the graphic image.

38. (Previously Presented) The apparatus of claim 33, wherein the playlist includes a graphic mark indexing the graphic image and specifying display duration of the graphic image.

39. (Previously Presented) The recording medium of claim 29, wherein the playlist includes display information for specifying display start and end times of the graphic image and display position and window size of the graphic image on the main video data.

40. (Previously Presented) The method of claim 30, wherein the playlist includes display information for specifying display start and end times of the graphic image and display position and window size of the graphic image on the main video data.

41. (Previously Presented) The apparatus of claim 31, wherein the playlist includes display information for specifying display start and end times of the graphic image and display position and window size of the graphic image on the main video data.

42. (Previously Presented) The method of claim 32, wherein the playlist includes

display information for specifying display start and end times of the graphic image, and display position and window size of the graphic image on the main video data.

43. (Previously Presented) The apparatus of claim 33, wherein the playlist includes display information for specifying display start and end times of the graphic image and display position and window size of the graphic image on the main video data.

44. (Currently Amended) The recording medium of claim 1, wherein the ~~transport packet~~ extra header includes copy protection information and an arrival time stamp.

45. (Currently Amended) The method of claim 8, wherein the ~~transport packet~~ extra header includes copy protection information and an arrival time stamp.

46. (Currently Amended) The apparatus of claim 9, wherein the ~~transport packet~~ extra header includes copy protection information and an arrival time stamp.

47. (Currently Amended) The method of claim 10, wherein the ~~transport packet~~ extra header includes copy protection information and an arrival time stamp.

48. (Currently Amended) The apparatus of claim 11, wherein the ~~transport packet~~ extra header includes copy protection information and an arrival time stamp.